

CLAIMS

What is claimed is:

1. Flexible tube head (40, 40') including an opening defined by an edge (41, 41') and a shoulder (42, 42') connecting the edge to the flexible skirt of the tube, characterised in that it comprises, set in the mass of the plastic material forming the head, an electronic component (20, 20') intended to exchange, without electrical contact, information about the tube and/or its contents with a read or read/write device outside of the tube.
2. Tube head according to claim 1 including a pivoting cap enabling the opening to be closed and in which the electronic component is set in the mass of the plastic material forming the cap.
3. Tube head according to claim 1, in which the electronic component is placed at the level of the shoulder of the tube, in the mass of the plastic material forming the head.
4. Tube head according to any one of claims 1 to 3, in which the total thickness of the electronic component is less than 400 microns.
5. Tube head according to any one of claims 1 to 4, in which the periphery of the support (21, 21') of the component is enclosed by the plastic material forming the head.
6. Tube head according to any one of claims 1 to 5, in which the support (21, 21') of the component consists at least partially of a material that is melt-compatible with the plastic material forming the head.
7. Tube head according to claim 6, in which the support of the component is made of polyethylene or polypropylene.
8. Tube head according to claim 6 or 7, in which the material that is melt-compatible with the plastic material of the head is an external layer that forms part of the inner wall of the shoulder of the tube.

9. Method for manufacturing flexible tube heads characterized in that it uses an electronic component (20, 20') capable of exchanging, without electrical contact, information with a read or read/write device, typically an RFID-type electronic component, in that the electronic component is placed inside the cavity (17) of the mold intended to form the head, then in that the head is molded, wherein the plastic material flows so as to embed the electronic component, thus making the assembly inseparable.

10. Method for manufacturing flexible tube heads according to claim 9 in which the head is injection molded.

11. Method for manufacturing flexible tube heads according to claim 9 or 10 in which the electronic component is deposited in the cavity of the mold intended to form the head without being held by any adhesive material.

12. Method for manufacturing flexible tube heads according to any one of claims 9 to 11, in which the electronic component is deposited on the convex conical surface (11) of a mandrel (10), the mold being arranged such that the mandrel (10) is underneath the die (16).

13. Method for manufacturing flexible tube heads according to any one of claims 9 to 12, in which the electronic component (20, 20') has a support (21, 21') comprising an external layer made of a plastic material that is melt-compatible with the plastic material of the head and in which the electronic component is deposited on the convex conical surface (11) of the head of the mandrel (10) while having the external layer opposite the convex conical surface of the mandrel.

14. Method for manufacturing flexible tube heads according to any one of claims 9 to 13, in which the electronic component (20') has a support in the shape of a disk with a hole at its center and in that the electronic component is placed around the projection (14) of the mandrel used to shape the inside of the neck

15. Flexible tube including a head and a flexible skirt, characterised in that the head comprises, set in the mass of the plastic material forming the head, preferably at the level of the shoulder, an electronic module capable of exchanging, without electrical contact, information on

the tube and/or its contents with a read or read/write device, typically an RFID (Radio Frequency Identification) electronic component.

16. Method for manufacturing a flexible tube provided with a head (40) and a skirt (30) in which the head is overmolded on the end (31) of the skirt, wherein the skirt is fitted around the mandrel of the mold, driven so that an end (31) of the skirt overflows and is contained in the mold cavity (17) delimited by the head of the mandrel (10) and the cavity of the die (16), characterized in that an electronic component (20), capable of exchanging, without electrical contact, information with a read or read/write device, typically an RFID-type electronic component, is deposited on the head (11) of the mandrel (10) in contact with the end (31) of the skirt (30) that overflows into the mold cavity (17).